

Customer Driven Technological Capability

Alpha's FPC / Rigid-Flex PCB manufacturing capabilities are among the Industry Leaders and continue to grow year-by-year at rapid rate. Compounding this growth are our increased advanced capabilities for rigid PCBs including open cavities, HDI, sequential laminations, and extreme heavy copper. If there is a demand for a given process, Alpha will make the necessary investments to add capability.

Capabilities at a Glance	
Layer Count	1 - 24+
Largest Panel Size	18" x 24"
Smallest Circuit Width/Spacing	.003 mils, .002 mils proto
Material Types	Polyimide, PET, LPC, FR4, Teflon, Arlon, Metal-Core Heat Sinks
Smallest Mech. Drilled Hole	.004"
Hole Size & Dim. Tolerances	+/- .003" and +/- .002"
Finishes / Lead Free	HASL, Immersion Silver/Gold, Deep Gold, Pb-Free HASL
Electrical Testing	Flying Probe
Fabrication	Routing & Scoring, Array Layouts
Plasma Processing Unit	Printed Electronics with Silver Ink Bumping, Metal-Core, Heat Sink
Laser	Drilling, Routing and Trimming

Production Capabilities

Materials

Feature	Current Capability	Future Capabilities
Substrate Minimum Thickness	.001"	.001"
Max. Operating Temperature	356F	500F
Maximum Layer Count	24+	30+
Silver Conductive Ink Impedance	< 6 mΩ / Sq / Mil	< 6 mΩ / Sq / Mil

Fabrication

Feature	Current Capability	Future Capabilites
Minimum Finished Hole Size	.002"	.001"
Blind/Buried Vias	.003" - .002"	.001"
Routing Tolerance	.005"	.005"
Scoring Tolerance	.002"	.002"

Imaging

Feature	Current Capability	Future Capabilites
Minimum Lines/Spaces	.002"	.001"
Min. Quad Flat Pack Pitch	.016"	.016 - .012'
Minimum Pad Size	.004"	.004" - .003"
Soldermask Registration	.003"	.002"
Soldermask Tolerance		